

*Watt, VA, Power factor, ACV, ACA, DCV, DCA,
VAr, Whr, ohms, true rms for Watt, ACV, ACA
0.1 Watt resolution for low power measurement*

POWER ANALYZER

Model : DW-6090A

ISO-9001, CE, IEC1010



Lutron

LUTRON ELECTRONIC

The Art of Measurement

Bench type

POWER ANALYZER

Model : DW-6090A

FEATURES

* Multi-functions : WATT, VA, Whr, PF (Power factor), ACV, ACA, DCV, DCA, Hz, ohm.
* True AC power(Watt) & apparent power (VA) measurement.
* True rms display for ACV, ACA.
* 0.1 W resolution (<1000 W), high precision and high resolution in the low watt range, good performance , for low power LED lamp watt measurement.
* Supper large LCD, easy to read-out, display the Watt, Power factor, Voltage & Current value at the same time.
* Accept different kinds current input signal as direct input, inductive clamp probe or CT (current transformer).
* Auto range.
* Built-in peak hold & data hold function.
* Watt & VA measurement with Hi, low alarm setting capability.
* RS-232 output interface.
* Exclusive custo high accuracy, reliability and durability.
* Built-in over input indication.
* Power supply by batteries or AC to DC adapter.
* Built-in low battery indicator .
* Durable bench type housing plastic case with carrying handle.

GENERAL SPECIFICATIONS

Display	* 93 mm x 52 mm large LCD (Liquid Crystal Display) display. * Multi-display unit, show Volt, Ampere, Watt, Power factor or Hz at same time.
Measurement	WATT, VA, Whr., Power factor, ACV, ACA, DCV, DCA, Hz, ohm.
Zero Adjustment	<i>Watt :</i> Watt : External adjustment by push button. <i>DCV, ACV, DCA, ACA :</i> Automatic adjustment.
Polarity	Automatic switching, "-" indicates reverse polarity.
Current input mode	Direct input, inductive clamp probe or CT.
Over input Indication	Indication of " ---- or " ---- .
Data Output	RS232 serial interface.
Sampling Time	<i>W, VA, ACA, ACV, PF, Hz :</i> Approx. 1.5 Sec. <i>DCV, DCA, OHM :</i> Approx. 1 Sec.
Operating Temp.	0 to 50 °C (32 to 122 °F).
Operating Humidity	Less than 80 % R.H..
Power Supply	<i>Battery power :</i> DC 9V, 1.5 V AA (UM-3) battery x 6 PCs. <i>AC power :</i> AC to DC 9V adapter (500 mA), optional.
Power Consumption	<i>Battery power :</i> Approx. DC 50 mA
Dimension	280 x 210 x 90 mm (11.0 x 8.3 x 3.5 inch).
Weight	Approx. 1.6 Kg (3.52 LB).
Standard	Test lead (red & black)..... 1 pair.
Accessories	Instruction Manual..... 1 PC.
Optional	USB cable, USB-01.
Accessories	Data acquisition software, SW-U801-WIN. Excel data acquisition software, SW-E802 .

OHMS

Range	Resolution	Accuracy
9,999 ohm	1 ohm	± (1 % + 1d)
19.99 K ohm	10 ohm	
* Auto range.		
* Overload protection " Max. AC/DC 300 V.		

* Appearance and specifications listed in this brochure are subject to change without notice.

ELECTRICAL SPECIFICATIONS (23±5°C)

Watt (AC, true power), <i>current mode from direct input</i>		
Range	Resolution	Accuracy
6,000 Watt	0.1 W (<1000W)	± (1.5% + 5 d)
	1 W (≥ 1000W)	
* Accuracy are specified under the following conditions : a) AC input current is 0.01 ACA & 10 ACA. b) AC input voltage is within 110 V± 15 % and 220V± 15%. c) ACA, ACV input signal is sine wave, 50/60 Hz. d) Power factor 0.5. * ACA, ACV frequency response is from 40 to 400 Hz. * Max. volt & current input signal value : Volt input : Max. AC 600V, Current input : Max. AC 10 A		

Watt (AC, true power), <i>current input cooperate with inductive probe or CT</i>	
Range	Resolution
0.1 to 999.9 Watt	0.1 Watt
9,999 Watt	1 Watt
99.99 KW	0.01 KW
999.9 KW	0.1 kW
* Accuracy will be same as the above " Direct Current Input Mode " but plus the accuray value of Current Transformer (CT) or the accuracy value of Inductive Current Probe. * <i>Input current should obey :</i> Inductive Probe - 20 ACA. CT 100/5 A - 8 ACA. CT 1000/5 A - 80 ACA.	

VA (AC, Apparent Power) <i>current mode from direct input</i>		
Range	Resolution	Accuracy
99.99 VA	0.01 VA	± (2 % + 2d)
999.9 VA	0.1 VA	
9,999 VA	1 VA	
* Accuracy are specified under the following conditions : a) AC input current is 0.4 ACA & 10 ACA. b) AC input voltage is within 110 V 15 % and 220V 15%. c) ACA, ACV input signal is sine wave, 50/60 Hz. * ACA, ACV frequency response is from 40 to 400 Hz.		

POWER FACTOR

<i>current mode from direct input only</i>		
Range	Resolution	Accuracy
0.01 to 1.00	0.01	± (1.5% + 2 d)
* Accuracy are specified under the following conditions : a) AC input current is 0.01 ACA & 10 ACA. b) AC input voltage is within 110 V 15 % and 220V 15%. c) ACA, ACV input signal is sine wave, 50/60 Hz. * Max. volt & current input value : Volt input : AC 600V, Current input : AC 10A		

Hz		
Range	Resolution	Accuracy
10.0 Hz to 99.9 Hz.	0.1 Hz	± (1 % + 1d)
100 Hz to 999 Hz.	1 Hz	
* Auto range. * Frequency signal input voltage level should > 6V & 600 V.		

AC VOLTAGE (true rms), DC VOLTAGE	
Range	Resolution Accuracy
0.1 V to 299.9 V	0.1 V <i>DCV :</i> ± (1 % + 1d)
300 V to 600 V	1 V <i>ACV (1 (10 V) :</i> ± (1 % + 7d) <i>ACV (1 (11 V to 100 V) :</i> ± (1 % + 5d) <i>ACV (1 (Others) :</i> ± (1 % + 1d)
* Auto range. * Max. input voltage : AC 600 V, DC 600 V. * ACV accuracy is test under input signal is sine wave, 50/60 Hz. * ACV frequency response is from 40 to 400 Hz. * ACV is true rms.	

AC CURRENT (true rms), DC CURRENT <i>current mode from direct input</i>		
Range	Resolution	Accuracy
ACA 0.05 A to 1.999 A	1 mA	± (1%+3d)
2.00 A to 10.00 A	10 mA	
DCA 0.01 A to 10.00 A	10 mA	± (1%+1d)
* Max. input current : AC 10 A, DC 10 A. * ACA accuracy is test under input signal is sine wave, 50/60 Hz. * ACA frequency response is from 40 to 400 Hz. * ACA is true rms.		

AC CURRENT (true rms), DC CURRENT <i>current mode from inductive probe</i>		
Range	Resolution	
ACA < 2 A	0.01 A	
2 A to 1000 A	0.1 A	
> 1000 A	1 A	
DCA 1000 A	1 A	
* Accuracy : Meter voltage range accuracy plus Inductive Probe's accuracy. * ACA is true rms.		

AC CURRENT <i>current mode from CT (current transformer)</i>	
Range	Resolution
CT 100/5A, 0.1 - 200.0 A	0.01 A, < 20 A 0.1 A, ≥ 20 A
CT 1000/5A, 1 - 2000 A	0.1 A, , < 20 A 1 A, ≥ 200 A
* Accuracy : Meter current range accuracy plus CT (current transformer) accuracy. * ACA is true rms.	

Watt Hour <i>current from direct input</i>	
Range	Resolution
0.001 Whr to 9.999 Whr	0.001 Whr
10.00 Whr to 99.99 Whr	0.01 Whr
100.0 Whr to 999.9 Whr	0.1 Whr
1000 Whr to 9999 Whr	1 Whr
10 K Whr to 99.99 K Whr	10 Whr
100 K Whr to 999.9 K Whr	100 Whr
1000 K Whr to 9999 K Whr	1 K Whr
* When Watt Hour value over 9999 K Whr, the Display value will reset to 0000 K Whr, then count up again. * Accuracy & other specification requirement same as " Watt " range exactly up again.	